



Let's begin with a little warm-up ... 

Find the next three terms in the following sequences.

1) 11

DEFINITION

~~044 55 66~~

— — — — —

2) 32, 16, 8, 4, 2, 1

$\xrightarrow{-8}$

3) 1, -2, 4, -8, 16, -32

$\xrightarrow{\times -2}$

— : — = $\textcircled{+}$

— : — = —

So, how would you define a sequence?

It is an ordered list of numbers
or objects called terms.

But, what if you don't want the next term?

What if you want a number further down the list, like the 100th term????

Do you want to do the pattern 100 times?!?!?

Introducing . . . the Rule of Luis!

Copy this table into notebook and follow the steps with me.

Term #	0	1	2	3	4	...	N
Term	1	4	7	10	13	...	3N

271

271

$$\begin{array}{r} -3.271 + 1 \\ -813 + 1 \\ -1 \end{array}$$

Example #2:

Term #	1	2	3	4	5	...	N
Term	2	7	12	17	22	...	$5N-3$

✓ ✓ ✓
5 5 5

$$- 5 \cdot 167 - 3$$

$$- 835 - 3$$

$$- 832$$

Let's make sure we've got it. Example #3.

Term #	1	2	3	4	5	...	N	432
Term	7	14	21	28	35	...	7N	

✓ ✓ ✓
7 7 7

7 · 432
3,024

Planner Time!!!!